

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 G08C19/28 H04B1/20

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 H04B G08C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)  
EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2001/017615 A1 (FAN YU-WU ET AL) 30 August 2001 (2001-08-30) paragraph '0011! - paragraph '0012! paragraph '0044! -----	1,4
A	WO 01/39150 A (KONINKL PHILIPS ELECTRONICS NV) 31 May 2001 (2001-05-31) cited in the application page 5, line 22 - page 8, line 23 -----	1,4
A	EP 0 314 177 A (NIPPON DENKI HOME ELECTRONICS) 3 May 1989 (1989-05-03) column 7, line 13 - line 21 column 9, line 44 - column 11, line 9 -----	1,4
A	DE 43 28 394 A (FRANCO LAPESCHI ELECTRONIC) 2 March 1995 (1995-03-02) column 4, line 50 - column 5, line 14 ----- -/-	1,4

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- \*E\* earlier document but published on or after the international filing date
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- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

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- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

30 November 2004

Date of mailing of the international search report

06/12/2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 03/056531 A (KONINKL PHILIPS ELECTRONICS NV) 10 July 2003 (2003-07-10) claims 1,6,7 -----	1,4

## Information on patent family members

International Application No

/IB2004/052160

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 2001017615	A1	30-08-2001	TW	456112 B	21-09-2001
WO 0139150	A	31-05-2001	CN	1359509 T	17-07-2002
			WO	0139150 A2	31-05-2001
			EP	1190406 A2	27-03-2002
			JP	2003516008 T	07-05-2003
EP 0314177	A	03-05-1989	JP	1117595 A	10-05-1989
			EP	0314177 A2	03-05-1989
DE 4328394	A	02-03-1995	DE	4328394 A1	02-03-1995
			DE	9401212 U1	26-05-1994
WO 03056531	A	10-07-2003	US	2004208588 A1	21-10-2004
			EP	1461791 A1	29-09-2004
			WO	03056531 A1	10-07-2003